



DON SUNDQUIST
GOVERNOR

TENNESSEE
STATE DEPARTMENT OF EDUCATION
6TH FLOOR, GATEWAY PLAZA
710 JAMES ROBERTSON PARKWAY
NASHVILLE, TN 37243-0375

JANE WALTERS, Ph.D.
COMMISSIONER

April 2, 1998

Mr. Paul C. Ney, Jr., Esq.
Doramus, Trauger & Ney
The Southern Turf Building
222 Fourth Avenue North
Nashville, Tennessee 37219

Dear Mr. Ney:

On March 30, 1998, I received your letter of protest and petition for Stay of Award based on RFS No. 97-2 Amended, based on the Notice of Intent to Award the contract to Education Networks of America, LLC (ENA) issued March 20, 1998.

I have investigated each of the allegations in your letter. As a result of my investigations, discussions, and a careful study of all the documents, I have reached the following conclusions:

1. ENA passed the required test and so did ISIS2000.
2. ENA's proposal does not misrepresent the E-rate Rules and Funding.
3. The Secretary of State has provided the department with a Certificate of Existence for Education Networks of America, LLC, which makes it a legal entity to contract with.
4. ENA has provided proper documentation of its financial resources.
5. The cost proposals were only submitted in separately sealed, marked envelopes, and remained sealed in the Commissioner's office.

Upon further review of the cost for services, I find that ISIS2000 submitted costs that were incomplete and confusing, while ENA was able to propose a plan that would maximize the state's dollars by securing Federal dollars while providing more services for the children of Tennessee.

Pursuant to T.C.A. Section 12-4-109 I have determined that there is no reason the contract should not be awarded to ENA. The protest is denied and I am recommending that the stay be lifted immediately.

Sincerely,

Jane Walters

Enclosure: Report from J. Shrago

Cc: Natasha K. Metcalfe, Esq. (via facsimile and state messenger)
Patricia J. Cottrell, Esq. Wyatt, Tarrant & Combs (via facsimile and U.S. Mail)
Jeff Husted, ISIS2000 (via facsimile and U.S. Mail)
Albert F. Ganier, III, Education Networks of America (via facsimile and U.S. Mail)



DON SUNDQUIST
GOVERNOR

TENNESSEE
STATE DEPARTMENT OF EDUCATION
6TH FLOOR, GATEWAY PLAZA
710 JAMES ROBERTSON PARKWAY
NASHVILLE, TN 37243-0375

JANE WALTERS, Ph.D.
COMMISSIONER

April 2, 1998

To: Jane Walters

From: Jackie Shrago 

Re: Report in Response to ISIS2000 Letter of Protest and Petition for Stay of Award, RFP 97-2

1. ENA Failed to Complete the Required Tests.

Response:

- 1.1. The State defined two tests of proposer equipment and communications lines as defined in RFP section 5.2.4.2.3. These tests had two purposes. Purpose (1) to have proposers offer equipment and communication lines which are currently on the market and that provide equivalent functionality to the existing network (defined as "throughput" in technical terms). Purpose (2) to have proposers demonstrate that their equipment and lines will work with the existing state network backbone. Section 3.5 stated, "The use of the terms Must/Should/Will/Should indicates a specific requirement which the State of Tennessee, Department of Education considers essential to this Request for Proposal. Failure to adhere to this definition *may* result in bidder disqualification."

The State determined that both vendors, ENA and ISIS2000, met the requirements of the RFP for the two demonstration tests. Each proposer relied on different approaches to meet the RFP requirements, therefore the tests varied because the proposals were different.

- 1.2. Both vendors completed the test for 30 computers at functionality equivalent to the existing network. Neither vendor completed the test for 60 computers at equivalent functionality to the existing network.

- 1.2.1. At the request of the State, ENA did not perform the 60-computer test because of time constraints. ENA had requested 3 hours to perform their tests; the state reduced the time to 1.5 hours because of the state's delay during the test period in establishing the benchmark for the existing network. ENA was prepared to perform the test for 60 computers, but the state determined that it would revise the tests required due to the time constraints. The state determined that it was not necessary to perform the 60-computer test given that (a) the test for 30 computers was successfully completed, and (b) the addition of an extra ISDN line to the same equipment was somewhat redundant. The state, however required that they perform the 120-computer test because it used a *different* type of communication line, i.e., a CDS line. ENA successfully performed this test.

- 1.2.2. ISIS2000 performed the 60-computer test but the result took 39% more time than the benchmark. This was substantially longer than the equivalent functionality of the benchmark. Again, because of the delay in starting the tests, the state determined that we would accept the results given that the test for 30 computers was successfully completed.

1.2.3. ISIS2000 never performed a throughput test of their proposed use of a frame relay circuit for a communications line.

1.3. The State determined on the day of the equivalent functionality test that both vendors met the requirement of the RFP, disregarding the test for 60-computers for both vendors. This was stated to both vendors on Saturday, March 7, 1998.

1.4. ENA successfully met all of the required tests of interoperability proving that its proposed types of lines and equipment operated successfully with the State network as required in the RFP. ISDN, CDS, and its proposed equipment were demonstrated at the Tennessee Tower test-bed. ISIS2000 argues that the dual ISDN was not demonstrated. A test of two ISDN lines is not functionally different from one ISDN line for the interoperability test.

1.5. The state determined, and specified to both vendors, that they had met the criteria of the RFP, therefore each was awarded two points in the technical evaluation. The ENA proposal was functionally responsive and ISIS2000's statement regarding ENA's proposal is untrue.

2. The ENA Cost Proposal Misrepresents the E-rate Rules and Funding.

Response to A: "The current network . . . is not eligible for E-rate funding as a capital expenditure . . .

2.1. Schools are required to obtain services through a competitive bidding process that meets state procurement rules (Exhibit 1, FCC quote #1 and #2). The RFP states (section 5.3.1) that "Any consideration of purchase of existing equipment, resale or salvage of existing equipment shall be calculated as savings to the State and Local recurring resources." Further, in Cost Proposal Format Attachment 9.2, the state allows "Other Funding offered by proposer could be an amount offered to the state as salvage value for state's existing equipment." The State will not own any equipment, and is not making a capital expenditure, it will only procure services from ENA. The State is permitted on FCC form 471 to indicate one-time fees and monthly fees.

2.2. ISIS2000's concern about the eligibility of ENA's service charges to the State for providing the services on July 1 is based on ISIS2000's lack of understanding of the nature of ENA's proposal and the State's undertaking. ENA will be selling no equipment to the State (actually, ENA will purchase the ConnectTEN network), and the State will not submit to the FCC any requests for reimbursement to the State after June 30.

Response to B: "The ISDN tariffs used by ENA in their cost calculations are, however, not eligible for the E-rate funding pursuant to a February 3, 1998, Tennessee Regulatory Authority ruling . . .

2.3. The State is procuring Internet access as specifically identified by the FCC as eligible for E-rate discounts. AOL, for example, or any other independent service provider is not required to disclose and have separately qualified every element of its operation (equipment purchased, personnel activities) which produces the service being purchased. Similarly, the state's purchase of services for its schools makes the eligibility of separate components of ENA's operational plans to deliver those services irrelevant since neither the schools nor the State are purchasing those separate elements (Exhibit 1, FCC quote 4)

Response to C: "The amount of time allocated to the web content belies ENA's claim that the web content that it proposes to provide is sufficiently 'minimal' and the most cost-effective means of providing the Internet service to spare that element of the ENA proposal from being characterized as non-eligible services."

- 2.4. The State is not purchasing web content services or any other separate components as described in the previous answer in paragraph 2.3. The State is purchasing the most cost-effective means of providing Internet access. The FCC has ruled that content must be "unbundled" from an Internet Service Provider's price, but that such pricing may include "minimal content" and "email service". (Exhibit 1, FCC quote #5). Further, the FCC has ruled that it urges schools to seek cost competitive solutions with maximum flexibility to meet school needs (Exhibit 1, FCC quote #6). The Department of Education fully expects that the costs pertaining to the services of the ENA proposal are well within the guidelines of the FCC definition of Internet access and will be approved as cost-effective.

Response to D: "ENA proposes to use an eight-person team representing 56,000 staff hours, to perform content, training and survey functions. These functions, contrary to ENA's cost proposal, are not eligible for E-rate funding, and they are beyond the scope of services requested by the State."

- 2.5. The State requested proposers to offer as much functionality as possible to meet school needs. The FCC has put forth hundreds of pages of rulings on the E-rate fund, but has consistently ordered that schools will decide how best to meet their requirements in order to obtain the best use of technology in the classroom (Exhibit 1, FCC quote #7). There are no specifications on what an Internet Service Provider can offer with the exception of content and the expectation that cost guidelines are met (described in "C" above). ISIS2000 quotes the FCC statement incorrectly in its letter.

The correct statement from the FCC (FCC97-157, paragraph 481) clarifies competitive bidding (see ISIS2000 appendix 2):

"First, in response to a number of commenters, we note that the Joint Board intentionally did not recommend that the Commission require schools and libraries to select the lowest bids offered but rather recommended that the Commission permit schools and libraries 'maximum flexibility' to take service quality into account and to choose the offering or offerings that meets their needs 'most effectively and efficiently,' where this is consistent with other procurement rules under which they are obligated to operate."

- 2.6. In terms of the State specified scope of services, following the state's procurement rules, a high priority was placed on "Responsiveness to K-12 needs" (RFP section 5.2.4.1.2.), "Variations due to Local Education Agencies" (RFP section 5.2.4.2.2), and limitations of technical capability of school personnel (RFP section 1.1, Statement of Purpose). ENA describes functions that are related solely to operating the network in support of non-technical personnel in 1600 schools. The staff time of ENA personnel represents 10 hours per school per year. The State has determined that this is definitely within the scope of the services requested.
- 2.7. ISIS2000 states in section 5.2.4.1.1 Scalability, that two of its top priorities, items 3 and 4 (page 6) are changes in the state backbone. The state backbone is the responsibility of the State Office of Information Resources and not the Department of Education, and therefore outside the scope of the RFP 97-2.

Response to E: The State apparently intends to award a \$74 million contract to ENA . . . , when ISIS2000 proposed comparable service to the State, for \$23 million less.

- 2.8. In the RFP Statement of Purpose (section 1.1), the State stated: "As much functionality as possible is desired within the State's budgetary constraints and discounts provided through the FCC E-rate Universal Service order. . . ." Further in Cost Proposal Evaluation (section 6.2.7) the State specifies: "Under no circumstance can the Total State and Local funds exceed amount specified in Cost Proposal Format (\$17,783,322). The State further described that the Cost Proposal

evaluation could be "improved by "increasing "Total State, Local, Other Funding, Savings and associated FCC funds paid to proposer".

- 2.9. ISIS2000 raises a concern about ENA's costs. The State will pay either proposer the same amount of dollars. ENA demonstrated its understanding of the State's RFP requirements and maximized the opportunity of obtaining FCC E-rate funds on behalf of the State's children. The cost formula (RFP section 6.2.7) clearly showed, by comparison examples, that there was an advantage to including Other Funds in the proposer's submission (RFP section 5.4.5.1), because the State specified that it would apply such funds to increase network functionality. This was further clarified in writing in response in State's Written Clarifications Question 53, as quoted in this protest letter by ISIS2000. ISIS2000 did not raise objection during the RFP process, and therefore waived its rights to challenge the Cost Proposal evaluation.
- 2.10. The FCC expects that because schools or consortia are paying a portion of the costs, that they should have wide latitude in determining the services they need to meet their educational objectives and that they will use their best judgment in securing those through the competitive bidding process. (Exhibit 1, FCC Quote #3)
- 2.11. ISIS2000 states that ENA should be disqualified based on price being a primary factor in selecting a bid. The State specified 45 pages of requirements in its RFP as 'relevant factors other than price.' The FCC adopted rules in its 4th order with maximum flexibility for schools (Exhibit 1, FCC Quote #5) and allowed school administrators to determine the most efficient and effective means for providing educational applications (Exhibit 1, FCC quote #7). All four evaluators graded the ENA proposal as superior in technical points to the ISIS2000 proposal in meeting the needs of Tennessee schools and students, before any consideration of cost was included. The State, by its stated criteria and RFP specified point system, judged the ENA proposal to be superior and in the state's best interest. The State has met the order of the FCC in its procurement process and has evaluated proposals consistent with FCC orders and state procurement rules. It therefore awarded the contract accordingly.

3. The Legal Status of ENA to Participate in this Process is Questionable.

Response:

The legal existence of ENA has always been valid and is valid now as established in the Secretary of State's Office as required by law, per attached confirmation (Exhibit 2).

4. ENA lacks the Requisite Financial Responsibility to fulfill its Obligations under its Proposal.

Response:

Specifics, paragraph 1: "In the event that the E-rate funds are unavailable to the State for this program, ENA's financial statement shows that it will not be able to deliver even the basic services as proposed."

- 4.1 Section 5.2.2.10 of the State's RFP requires "documentation of financial responsibility, financial stability, and sufficient financial resources to provide the scope of services to the state in the volume projected and within the time frames required and within the constraints of receipt of discounts from the FCC E-rate fund." All of the required items were included in ENA's proposal. These included description of proposer's organization, statement of any proposer's filing of bankruptcy or receivership, other pertinent financial information including the most recent audited financial statements. All items were reviewed by the evaluators and scored accordingly. The State finds no misrepresentation in the documents provided by ENA.

5. ENA Apparently Failed to Submit Cost Data in a Sealed Envelope.

Response:

The page labeled

"Reviewer Questions for ENA Response to RFP 97-2

March 10, 1998

Deliver via email with confirmation phone call to Jackie Shrago" was the heading on the document provided to ENA. (See Exhibit 3).

In response to this question, ENA delivered the first two pages of the Protest exhibit describing services, but no cost information was provided to any evaluator when the response was delivered. All cost information was provided in a sealed envelope and only in a sealed envelope. The envelope remained sealed in the Commissioner's office until the RFP coordinator had transferred all evaluator technical scores to the Summary Sheet, signed and dated that Summary Sheet, and two additional persons had confirmed the accuracy of the scores transferred.

6. ISIS2000 has made some questionable statements in its response with respect to its understanding of the E-rate program and the state's requirement for equity among schools.

6.1 ISIS2000, in response to RFP Section 5.2.4.1.5 on Migration Plan makes a statement that describes an illegal use of E-Rate funding. "E-Rate discounts will be aggressively used to upgrade ConnectTEN in a manner that will ensure an improved quality of service, while simultaneously ensuring that the network continues to be affordable in the event of reduced or discontinued E-Rate funding. One component of this aggressive strategy will be to target school systems with the higher E-Rate discount percentages for early upgrade, with the E-Rate matching from those implementations used to continue to fund the network upgrade." It has been a requirement of the Congress in passing the law, all implementation documentation by the FCC and the submission forms themselves, which requires that "[e]ach eligible school, school district, library or library consortia will be credited with the discount to which it is entitled." (47 C.F.R. Section 54.505(d)). (Exhibit 1, FCC quotes #8 and #9)

6.2 Further, in its Migration Plan response (section 5.2.4.1.5), ISIS2000 has stated: "When a school desires to add additional computers to the network, they will be provided the option to increase their available bandwidth and pay the rate associated with the next higher category of size." This unspecified cost generates inequities among schools because of their ability or inability to pay. Therefore, it violates one of the stated requirements in the RFP Statement of Purpose (section 1.1), "The upgrade of the ConnectTEN network must provide fair and equitable access to the Internet for all public K-12 schools and their students."

7. ISIS2000 has provided limited E-rate cost information and supplemental E-rate cost information with apparent inaccuracies.

7.1. ENA has documented in very clear terms in its Cost Proposal all of the conditions that are possible under all of the E-rate scenarios, including no E-rate funding at all, no E-rate funding after 18 months, no E-rate funding after 30 months. All were found to be financially sound and reasonable within the maximum funds that the state is offering. The ENA technical proposal clearly describes all of these scenarios and the services that will be delivered, with and without E-rate funding in every period, including downsizing the network if E-rate funding is not available.

7.2. ISIS2000 only documented the scenario for full E-rate funding in its Cost Proposal. ISIS2000 provided confusing information in its technical proposal regarding E-rate scenarios. ISIS2000 did not provide cost information as specified in section 5.3.1 for the scenario of no E-rate funding after 18 months, and no E-rate funding after 30 months.

- 7.3. In the supplemental E-rate funding cost information, ISIS2000 failed to multiply the monthly cost by 6 to obtain the 6-month cost. The "Total 6 Month Cost Per Site" appears to be miscalculated. Refer to Exhibit 4 that notes the "Estimated Monthly Cost Per Site". The "Total 6 Month Cost Per Site" is understated because it only includes the cost for one month, not six months. The Total 6 Month Cost is actually a sum of the One-Time Cost and the Monthly Cost. It would seem that Total 6 Month Cost should be the sum of the One-Time Cost and six times the Monthly Cost. (Exhibit 4)

Exhibits:

- (1) Federal Communication Commission (FCC) Quotes
- (2) Confirmation of ENA legal status from Secretary of State
- (3) Requested Clarifications from ENA indicating mislabeled heading
- (4) ISIS2000 E-rate Cost Supplement

EXHIBIT 1

Department of Education Response Exhibit 1: Federal Communications Commission (FCC) Quotes

Quote #1

FCC 97-420, paragraph 222

In the *Order*, the Commission concluded that any school, library or rural healthcare provider that is eligible to receive supported services will be required to seek competitive bids for all services eligible for support pursuant to section 254(h) by submitting a bona fide request for services to the Administrator that includes a description of the services that the school, library or health care provider seeks.

Quote #2

FCC 97-420, paragraph 225

"In the *Order*, the Commission explained that the universal service competitive bid process is not intended to be a substitute for state, local or other procurement processes."

Quote #3

FCC 97-157, paragraph 432

"Because we will require schools and libraries to pay a portion of the costs of the services they select, we agree with the Joint Board that, as recognized by most commenters, allowing schools and libraries to choose the services for which they will receive discounts is most likely to maximize the value to them of universal service support (E-Rate) and to minimize inefficient uses of services."

Quote #4

FCC 97-157, paragraph 428

"According to the Joint Board, Internet access should be defined as basic conduit, i.e., non-content access from the school or library to the backbone Internet network, which would include the communications link to the Internet service provider, whether through dial-up access or via a leased line, the links to other Internet sites via the Internet backbone, generally provided by an Internet service provider for a monthly subscription fee, if applicable, and electronic mail.

Quote #5:

FCC 97-157, paragraph 445

"The Joint Board recommended that we solve the problem of bundling content and "conduit" (access) to the Internet by not permitting schools and libraries to purchase a package including content and conduit, unless the bundled package included minimal content and provided a more cost-effective means of securing non-content access to the internet than other non-content alternatives."

Quote #6

FCC 97-157, paragraph 428

"In the Recommended Decision, the Joint Board recommended that the Commission adopt rules that give schools and libraries the maximum flexibility to purchase whatever package of telecommunications services they believe will meet their telecommunications needs most effectively and efficiently."

Quote #7

FCC 97-157, paragraph 432

"As the Joint Board recognized, the establishment of a single set of priorities for all schools and libraries would substitute our judgment for that of individual school administrators throughout the nation, preventing some schools and libraries from using the services that they find to be the most efficient and effective means for providing the educational applications they seek to secure."

Quote #8

FCC 97-420, paragraph 184

"State telecommunications networks must take reasonable steps to ensure that service providers apply appropriate discount amounts on the portion of the supported telecommunications used by each eligible school or library".

Quote #9

FCC 97-420, paragraph 200

The Commission established that, for eligible schools ordering telecommunications and other supported services at the school district or state level, the individual schools with the highest percentages of economically disadvantaged students should continue to receive the higher discount for which they are eligible. ... "the state or the district shall strive to ensure that each school receives the full benefit of the discount to which it is entitled."

Secretary of State

Corporations Section

James K. Polk Building, Suite 1800
Nashville, Tennessee 37243-0306

REQUEST NUMBER: 98086130
TELEPHONE CONTACT: (615) 741-6488

CHARTER/QUALIFICATION DATE: 05/28/1996
STATUS: ACTIVE
CORPORATE EXPIRATION DATE: PERPETUAL
CONTROL NUMBER: 0312658
JURISDICTION: TENNESSEE

EXHIBIT 2

TO:
BOULT CUMMINGS CONNERS & BERRY
P.O. BOX 198062
NASHVILLE, TN 37219

REQUESTED BY:
BOULT CUMMINGS CONNERS & BERRY
P.O. BOX 198062
NASHVILLE, TN 37219

CERTIFICATE OF EXISTENCE

I, RILEY C DARNELL, SECRETARY OF STATE OF THE STATE OF TENNESSEE DO HEREBY CERTIFY THAT

"EDUCATION NETWORKS OF AMERICA, LLC"

A LIMITED LIABILITY COMPANY DULY FORMED UNDER THE LAW OF THIS STATE WITH DATE OF
FORMATION AND DURATION AS GIVEN ABOVE;
THAT ALL FEES, TAXES, AND PENALTIES OWED TO THIS STATE WHICH AFFECT THE
EXISTENCE OF THE LIMITED LIABILITY COMPANY HAVE BEEN PAID;
THAT THE MOST RECENT LIMITED LIABILITY ANNUAL REPORT REQUIRED HAS BEEN FILED;
THAT ARTICLES OF DISSOLUTION HAVE NOT BEEN FILED; AND
THAT ARTICLES OF TERMINATION OF THE EXISTENCE HAVE NOT BEEN FILED.

FOR: REQUEST FOR CERTIFICATE

ON DATE: 03/27/98

FROM:
BOULT, CUMMINGS, CONNERS & BERRY
P. O. BOX 198062
NASHVILLE, TN 37219-0000

RECEIVED: FEES \$20.00 \$0.00
TOTAL PAYMENT RECEIVED: \$20.00

RECEIPT NUMBER: 00002278436
ACCOUNT NUMBER: 00000413



Riley C Darnell

RILEY C. DARNELL
SECRETARY OF STATE

EXHIBIT 3

REQUESTED CLARIFICATIONS

Reviewer Questions for ENA Response to RFP 97-2

March 10, 1998

Monday Mar 16

Please provide answers by 4:00pm. CST, Friday, March 13, 1998

Deliver via email with confirmation phone call to Jackie Shrago (shrago@ten-nash.ten.k12.tn.us), 615-532-1229.

1. **Proposer Qualifications (5.2.2.7, p 26)** Is the answer "no" or "yes, but will not impair the proposer's performance?"
2. **Project Understanding (5.2.4.1, p40).** While a good idea, Content Services seems to be beyond the scope of the project. Please explain its inclusion.
3. **Scalability (5.2.4.1.1, p 46 and following re: caching).** Please explain if any caching server outage is transparent to the end user except for degraded response time.
4. **Quality of Service (5.2.4.1.4, p. 67).** ENA states that CDS service levels are expected to be at 99%. What is the reliability of achieving the published bandwidth on an actual basis? In other word, if you order T-1 capacity, what is the reliability for getting T-1 capacity?
5. **Variations due to Local Education Agencies (5.2.4.2.2, p 81).** Migrating to TCP/IP is a good strategy, it seems to be out of scope for this RFS. Please explain your rationale for including it.
6. **Management Plan (5.2.4.3.1 & 5.2.4.3.11, p 86-87)** ENA School Partners and TC Web page seem also to be out of scope functions. How much time will the 8 person team spend performing this function? How does the TC web page support ENA's responsibilities?
7. **Appendix G Site by Site changes.** Please describe how ENA would work with a school with a PC count identified (a) if the count is less than the number in Appendix G, and (b) if the count is greater than the number in Appendix G.
8. **E-Rate Form 471 filing for the first E-Rate period** requires a detailed list of services. Please provide sufficient detail for July 1-Dec 31, 1998. Costs for these items will also need to be detailed but should be provided in a separately sealed cost information package which will be opened at the time that the Cost Proposals are opened.
9. **Section 5.2.2.1, Page 14,**
Please elaborate and explain in more detail what was done specifically by the ENA group, in the "design, and implemented the existing ConnectTEN Network." Does this mean that ENA was responsible for the entire design and implementation from the Education County Routers to the schools? If so, please explain the role of others that were involved in the process.
10. **Section 5.2.2.2, Page 18,**
Please identify and explain the role that ENA was responsible for and what is meant by the statement "provided services for the overall design and implementation of the ConnectTEN project development, installation, operations - selection of vendors for entire network." Is this meant to include all vendors such as Concepts In Communications and all other multiple vendors such as NCR that were used to assist in placing the network in service and perform maintenance, analysis of network performance etc after it became operational.

EXHIBIT 4

ISIS 2000 Proposed Plan

SLC Service Provider Number	Services or Products	# of Sites	Estimated One Time Cost per Site	Estimated One Time Prediscount Cost	Estimated Monthly Cost per Site	Estimated Monthly Prediscount Cost	Estimated Total 6 Mo Cost per Site	Estimated Total 6 Mo Prediscount Cost
"Shared" Services								
143005584	County	95	-	-	-	-	-	-
	Frame Relay	95	10,298	978,109	-	-	10,298	978,109
	Router	95	-	-	-	-	-	-
	POTS	95	-	-	-	-	-	-
	Installation & Maintenance	95	376	35,825	1,552	147,400	1,927	183,025
			10,671	1,013,734	1,552	147,400	12,222	1,161,134
"Site Specific" Services								
Small Schools								
(Sites w/ < 30 computers)	ISDN	400	-	-	360	144,000	360	144,000
	Fractionalized T1	400	-	-	-	-	-	-
	Frame Relay	400	-	-	-	-	-	-
	Internet Access	400	-	-	433	173,111	433	173,111
	Router	400	-	-	-	-	-	-
	Installation & Maintenance	400	-	-	-	-	-	-
			-	-	793	317,111	793	317,111
Medium Schools								
(Sites w/ 30-40 computers)	ISDN	1000	-	-	360	360,000	360	360,000
	Fractionalized T1	1000	-	-	-	-	-	-
	Frame Relay	1000	-	-	-	-	-	-
	Internet Access	1000	-	-	866	865,555	866	865,555
	Router	1000	-	-	-	-	-	-
	Installation & Maintenance	1000	-	-	-	-	-	-
			-	-	1,226	1,225,555	1,226	1,225,555
Large Schools								
(Sites w/ 61-120 computers)	ISDN	300	-	-	-	-	-	-
	Fractionalized T1	300	-	-	795	238,500	795	238,500
	Frame Relay	300	-	-	795	238,500	795	238,500
	Internet Access	300	-	-	1,731	519,333	1,731	519,333
	Router	300	2,087	620,052	267	80,016	2,334	700,068
	Installation & Maintenance	300	438	131,250	-	-	438	131,250
			2,504	751,302	3,688	1,078,349	6,092	1,827,651
X-Large Schools								
(Sites w/ > 120 computers)	ISDN	100	-	-	-	-	-	-
	Fractionalized T1	100	-	-	795	79,500	795	79,500
	Frame Relay	100	-	-	795	79,500	795	79,500
	Internet Access	100	-	-	3,482	348,222	3,482	348,222
	Router	100	5,234	523,381	604	80,403	5,838	583,784
	Installation & Maintenance	100	438	43,750	-	-	438	43,750
			6,071	607,131	5,656	565,625	11,328	1,132,756
Total Proposed Plan			1,203,325	3,515,645	1,055,997	4,375,223	2,258,322	7,890,868

X 6 months
6,335,982

$$(3,515,645) + (6 \text{ MONTHS OF } 4,375,223) = 29,766,983$$

Presentation to the Review Committee, RFS 97-2, Hearing on Protest
April 6, 1998
Jacqueline B. Shrago, Department of Education

We seek today to resolve the protest so that the State of Tennessee may enter into a contract with the bidder who most fulfilled the request for proposal for the Expansion and Network Operation of ConnecTEN.

Before I begin to respond specifically to the protest presented by Mr. Ney for his client, ISIS, I would like to review the purpose of our endeavor. Reading selections, from the RFP Statement of Purpose, I will attempt to summarize where we started and why we are doing this.

K-12 Need

"The K-12 school environment is very different from that of business. Money has been and will continue to be an overriding factor in determining what kind of technology is employed across most of the classrooms of Tennessee. The upgrade of the ConnecTEN network must provide fair and equitable access to the Internet for **all** public K-12 schools and their students. This upgrade must be planned and executed to minimize lack of network availability for students and teachers."

"The ConnecTEN project was started with the vision of connecting all of Tennessee's K-12 public schools to the Internet with a minimum of one computer connected in the school library (and network access of one hour per week per child). Since the number of students per computer is quite high, the computers are often in continual use. The purpose of the Internet connections is to provide instructional opportunities for use by all students, organized by classroom teachers. Fair and equitable treatment must be provided to all school sites and all local education agencies. Functionality, reliability and improved security are of significant important to allow teachers to use the network for instructional purposes in classrooms."

Tennessee's ConnecTEN

Those of you on the review panel know our schools and our Tennessee students. We have many school libraries where there are no books that anticipate man on the moon. We have students in some isolated areas that have never been to McDonald's or stepped onto an escalator. For them, the Internet opens the world! Through it, they see pictures, meet people, explore ideas and both receive and create information that changes their lives. The excitement in our schools for ConnecTEN is thrilling. It motivates poor students, enlivens teachers who have gotten "burned out", it offers resources of the world's best libraries and museums to **all** of our children. So those in Rhea County have the same opportunity as those in Williamson. Parents in Polk County climbed ladders and pulled wired so that every one of their classrooms could get connected. The Johnson County school board put up the largest expenditure ever to purchase computers so they would have enough for their students. We planned ConnecTEN for 7,000 computers, we now have 50,000 on line but we expect 90,000 over the next two years. This expansion

and capability would be impossible for a state like Tennessee, except for a very new and dynamic program. It is called the E-Rate.

E-Rate

The Congress and the President realized that for our schools to really have enough technology, major new initiatives would have to occur and creative funding sources would need to be found. Together they agreed on a special provision in the Telecommunications Act of 1996. Wiring and connection to the Internet have been understood to be extremely important, assuring that the "have's" and "have nots" are treated equally and have access to information for today's world. They created the E-Rate program allowing schools and libraries to submit application, based on the percentage of free and reduced lunch students, for substantial discounts off telecommunications and computer networking services.

In 1934, this country made a similar commitment so that every home could be wired with a telephone, no matter how isolated. It is that same law that was expanded with a similar commitment to wire every classroom. 1998 is the first year for this program. They didn't set it up as a grant program because they wanted schools to be committed and ready to use the technology. There are a variety of rules. Schools have to have plans, they have to provide part of the funding, they have to assure that teachers will be trained and that they have enough computers to make use of the network. But they also established wide flexibility so that schools could decide what they need in their communities and not try to establish the services from Washington. This provision passed the Congress by overwhelming bi-partisan margins. Its continuation has been once again affirmed, including the money being established at \$2.25 Billion, and obtained, not as a federal budget item, but as contributions from corporations as a result of deregulation of the telecommunications industry.

Now

Tennessee, when compared to all of the states in the country, was one of the first to realize the power and potential of the networks and connection to the Internet. So, Tennessee has been a leader in working with the parties in Washington to clarify, refine and get the initial program up and running in record time. Tennessee was also prepared to take advantage of this unique opportunity to get discounts for services for Tennessee schools.

The Federal Communications Commission and its administrative arm, the Schools and Library Corporation was charged with establishing the program. They established that schools would have to apply each year for discounts, and that it would be approved on a "first come, first serve" basis. However, in this, the first year, they established a 75 day window meaning that all who apply within that time would be treated on an equal priority basis and equally eligible for the discounts. They have received 40,000 initial applications with the specific requests for funding due with all paperwork received by April 15, 1998.

E-Rate and the RFP

The State issued an RFP where proposers were given wide opportunity to offer the maximum service levels possible for the public schools of Tennessee. However, a proposer was also expected to offer services responding to the situation of receiving E-Rate funding and the possibility of not receiving funding, not only in 1998, but also in 1999, 2000, and 2001. This uncertainty, because the State can apply for only one calendar year of funding and the contract with the state was defined as 3.5 years, left the burden of adjusting to the funding variations as the responsibility of the bidder. Obviously, the bidder would not be required to deliver the same services with and without the funding. However, the difficulty in a network is that once you purchase equipment and establish connections that deliver one level of service, you then have to reduce that capacity in order to reduce the substantial recurring costs, if the funding level drops. Proposers were required to describe service levels with and without the E-rate funding in each 6-month period of the contract.

Cost Formula

The Evaluation and Contract Award section 6 fully described the Cost Formula. It clearly showed using examples, the advantage of proposing additional funding to provide additional services. The FCC articulated that schools could obtain as many services for which they could afford to pay their share (33% in Tennessee's case) and use effectively with a plan, trained teachers and sufficient computers. Tennessee has all of the necessary elements.

Tennessee stated in the RFP that it was willing to put any sources that proposers would offer, as well as any savings into network services. All services are to be invoiced in two parts, one part to the State and one part to the FCC. Because the State is eligible for a 66% discount, this means that the State could submit a contract to the FCC for as much as three times the amount of its available funds and meet the financial commitments to the FCC. One third would be paid by the State and two-thirds paid by the FCC. The amount of available funds from State and Local Sources was defined in the RFP with a maximum of approximately \$5.1 million in any fiscal year, plus any other sources that a proposer could offer from the sale of equipment or salvage. Therefore in any year, the State could receive the benefit of services for significantly more than its available dollars.

Today

Approval of the contract negotiated following the Notice of Intent to Award is necessary for Tennessee to finalize its application and be eligible for the discounts. Without a contract, we cannot file the application to the FCC. We, the Department of Education seek your agreement with our findings and conclusions that this contract should be awarded to Education Networks of America.

Now, let me turn to the specific responses to ISIS' letter of protest.

Item #2. The ENA Cost Proposal Misrepresents the E-rate rules and funding

The E-Rate funding is a significant component of this RFP. Again, reading from the Statement of Purpose (section 1.1), the RFP states:

"Creativity is particularly important in living within the classroom constraints, providing a migration plan from the existing capability and the existing financial resources to the possibility of the State's eligibility and acceptance by the FCC to receive E-Rate discounts. Creativity is also required to respond to the situation if Tennessee's E-Rate application in 1998 or future years is not funded. "

In the written report in response to the Letter of Protest which is already in the record, we responded specifically to each item.

Item 2A "The current network...is not eligible for E-rate funding as a capital expenditure..."

Item 2B regarding ISDN tariffs

Item 2C regarding web content

Item 2D regarding staff hours

We identified specific sources for clarifying the E-rate funding rules with reasons why we fully expect that these items are eligible. There are some 3500 pages of FCC orders, guidelines, comments and clarifications and having read them all, there is room for interpretation among these pages. The State has been diligent and sought the advice of an attorney in Washington who regularly handles FCC matters. He has worked with us for over 200 hours in understanding our situation and informing us of how these rulings affect our situation. I have been advised by that counsel, with whom I spoke on Friday and again on yesterday. He has read the pleading and has stated to me that he does not believe it has merit. Clearly they present one side of the story, and if this is actually filed with the FCC, we will respond. Clearly, if it is filed, we are jeopardized from participating for funds in the 75 day window, and our application is likely to be delayed at least one year. It is also clear that their request for "Expedited Declaratory Ruling" is not valid because they would have to show immediate material harm and there is certainly no harm to them before the application due date of April 15, 1998. There will be no ruling by April 15, 1998.

We can spend a great deal of time examining these issues. I submit to the committee, that (1) the State has diligently familiarized itself with the E-Rate program over the last 1.5 years; (2) developed its RFP in light of the E-Rate program; and (3) evaluated the responses in light of the needs of Tennessee schools and the E-Rate program. The FCC and the SLC are the only people who can fully answer these items 2A, 2B, 2C, and 2D raised in this protest objection.

Item #2E, "The State apparently intends to award a \$74 million contract to ENA...,when ISIS2000 proposed comparable service to the State, for 23 million less."

While this is also an E-Rate issue, because there is always concern if such a statement were true, I will specifically respond to this in terms of the comparability of service. In fact, the proposal from ISIS is not comparable to the proposal from ENA.

In the Cost Proposal, section 5.3, the RFP states:

"The proposer must clearly show the capability that will be provided through State and Local recurring funds and the amount the State and Local agencies must pay for these services. RFP services should also be identified which will be provided as a result of eligibility and funding from the FCC E-Rate Fund. For example, one level of functionality might be proposed using State and Local funds solely, and a higher level of functionality might be proposed when the FCC E-Rate funds included. The proposer must clearly identify the capability that will be provided for every period throughout the life of the contract, if the E-Rate funding is not available in any period. "

The RFP described that any other available funding from the proposer that would be paid to the State would also be used to increase the service levels for Tennessee schools. Examples of how this would work were provided in Section 6.2.7. It showed a comparison of one year of funding where one proposal offered services of \$12.5 million and the second offered \$13.125 million with the latter receiving more points in the awarding of points.

This formula and examples were in the RFP from the beginning. All were approved by the Comptroller's Office and the Department of Finance and Administration before the RFP was issued. It was also reviewed with our FCC attorney. This was reviewed with the proposers with opportunity for questions in three pre-bidder's conferences. There were written questions by proposers and clarifications issued. All proposers agreed to the formula and waived any rights to oppose it. (Required Review and Waiver of Objections by Proposers, section 3.4 in the standard template language of the State).

Despite the requirements of the RFP to provide information about the delivery of services both with and without E-Rate, ISIS did not provide this information in any of its cost information. ENA clearly described their services and costs with and without E-Rate funding in each of the 7 six-month periods. ISIS provided only cost information with E-Rate funding. And in identifying its services, even after a request for clarification, it further confused the level of services that would be offered without E-Rate.

In responding to the statement that ISIS proposed comparable services, we offer the following differences.

What are the differences that reflect \$23 million difference in price?

Capacity and reliability are critical to provide services to schools where our number of computers has already grown from 7,000 to 50,000 computers. And this network is expected to grow to 90,000 computers. Let's get to the bottom line: delivering information to the student's computer screen that is important, appropriate, reliable and presently quickly enough to be a learning experience for every student. Before we look

at the specifics, let me offer a comparison for the context for the cost. Bellsouth.net could provide a comparable service to ENA at an average cost of \$1,770 per school per month. This represents a \$133 million cost over the life of the contract, waiving installation costs. This example is drawn from their current price list. ENA's proposal is \$74 million, 45% less. ISIS offers their service for a **questionable** \$51 million and it is not comparable. I can provide specifics that the services are different and there are significant issues as to whether ISIS can provide even the services proposed for the costs specified in the ISIS proposal.

I. Service Levels using specialized equipment cost more to get results we need for students in the classroom

- a. **Internet Reliability Index.** Internet access at 10:00am, is often slow. The State of Utah actually demonstrated a 45% increased use and productivity for teachers and students when they installed the kind of equipment that ENA is proposing. This equipment is called "caching." Teachers can't entertain a classroom of students while waiting on an Internet site. ENA's approach is more robust, more reliable, and more expensive. The ENA approach happens automatically without teacher intervention. The capability occurs in 3 levels in the network, not 1. ISIS stated that teachers would actually call the helpdesk every time they wanted a site reserved. Teachers don't have access to phones in the classroom and they can't leave their students while they walk down the hall. Also imagine 50,000 teachers calling the helpdesk whenever a site is to be reserved. The current helpdesk handles about 50 calls a day, so their approach is simply unworkable. ISIS is not clear when, how or where the caching capability will be implemented.
- b. **Less than half as much security.** ENA has four security checkpoints vs. one or two for ISIS. The RFP stated that this is a growing concern for schools and will only increase as usage increases.
- c. **Protection from pornography.** It appears to be optional for the ISIS proposal and built in as a committed service level for ENA. Given that our state legislature is currently considering such a law and it will require a significant fiscal note if this contract is not signed, this protection is becoming more important with each passing week. Federal legislation may also make this a requirement.
- d. **All items are provided at the beginning of the contract for all schools.** Not clear what ISIS has in place in the first six months on these 3 items above.
- e. **Capacity Index.** Currently ConnectTEN has 5 times as many computers as it was designed for. This means that a lot of computers can't access the network at the same time. It is not clear how much capacity is in the ISIS proposal, however ENA has contracted to deliver guaranteed service levels of 2 pages

per minute for every student with 90,000 computers on the network. What does this mean? Students sitting in a classroom waiting for the information to emerge on the screen are not learning. They are waiting. Teachers know that such waiting generally means that problems will occur in the classroom. So this is an unacceptable and impossible learning environment. ENA built a measurable index that is a combination of equipment and communication line increases to guarantee this level of performance. They document in their response observing teachers and students to design and arrive at this capacity index.

- f. **Equipment Reliability.** ISIS combined 3 functions into one piece of equipment, rather than the 3 that ENA is proposing. Their approach cannot be as robust, reliable or effective as specialized equipment. ISIS has a single point of failure and a greater likely of degradation of performance.

II. ENA's proposal includes a critical migration plan to return the network to a functioning status within the state's resources without E-rate funding.

- a. ENA presented a variety of options in equipment and communications under (p. 60-61) 5 separate E-rate scenarios. ENA clearly documented sufficient funds for delivery of services to all schools if E-rate funding disappears particularly in 1999 or 2000.
- b. Even in the clarification letter of March 10 where ISIS response was required to clarify discrepancies in various places in their proposal, there was still missing and misleading information. Chart on page 5 (clarification letter) shows **without E-rate**, new school routers, new county routers, and all schools with upgraded bandwidth. This capability would cost \$3.7 million based on the numbers they provided: (Department response, Exhibit 4)

One-time

95 county routers @ \$10,295	\$ 978,000
Install & maintenance	35,625
School routers (1800)	2,711,000
Total purchases	3,724,625

This exhibit 4 was requested by the State so that we could further study the monthly costs that is what the state may be obligated for. There is a major discrepancy between one-month and six-month costs. Even if we assume that they intended for the six month to be the accurate one, it appears unlikely that there is a tariff from BellSouth to support the costs shown for communications lines offered.

While it might appear that the state is getting this equipment and communications lines for nothing or at a real bargain, it was of grave concern

when we noted that ISIS has a negative net worth of \$1.6 million and was given no credit rating status by Dunn & Bradstreet. In addition, the parent company, Great Universal Inc., also was given no credit rating status by Dunn & Bradstreet (as per their documents). The "Top Parent" according to D&B, is apparently the fourth in a chain of corporations that owns ISIS. There is no credit information for this Luxemborg company which was started in 1992 and operates as a "management and public relations consultant" according to D&B in documents provided by ISIS in their response.

While ENA's costs appear on the surface to be higher for much higher levels of service, we have been unable to verify what ISIS' costs really are, as indicated by Exhibit 4.

Do you have any questions?

Item #4: ENA lacks the Requisite Financial Responsibility to Fulfill its Obligations under its proposal.

Section 5.2.2.10 of the State's RFP requires

"documentation of financial responsibility, financial stability, and sufficient financial resources to provide the scope of services to the state in the volume projected and within the time frames required and within the constraints of receipt of discounts from the FCC E-rate fund." More specifically, "said documentation shall include:

Other pertinent financial information by which the State may reasonably formulate an opinion about the relative stability and financial strength of the proposer--this information must include the most recent audited financial statement, or in lieu of such, a banking reference and a credit rating by a rating service."

All required items were included in the ENA proposal. The ENA audited financial statements showed a net worth of \$1.5 million, compared to the negative \$1.6 unaudited net worth of ISIS. ENA showed an audited net income of \$48,000. ISIS showed an unaudited net loss of \$1.455 million. An ENA Banking reference was included.

ISIS did not provide audited financial statements. ISIS provided Dunn & Bradstreet documentation but no credit rating. Quoting from D&B,

"The absence of a Rating (--) indicates that the information available to D&B does not permit us to assign a Rating to this business. In this case, no Rating was assigned because of D&B's "unbalanced" assessment of the company's December 31, 1997, fiscal financial statement. "

As indicated earlier, ISIS, its parent nor the top parent has a credit rating. ISIS included a bank letter that stated it had a satisfactory checking account but no reference was made of its relationship with the bank. A credit line was identified

for the parent but there is no indication or guarantee that any portion of the credit line is available from the parent company to ISIS.

All items were reviewed by the evaluators and scored accordingly.

The State finds no misrepresentation in the documents provided by ENA. ISIS did not provide all of the required documents.

Do you have any questions?

Item #3: The Legal Status of ENA to Participate in this Process is Questionable.

The legal existence of ENA has always been valid and is valid now as established in the Secretary of State's Office as required by law, per attached confirmation.

Do you have any questions?

Item #1. ENA Failed to Complete the Required Tests

In the report to Commissioner Walters, in response to the letter of protest, I described the specific tests that we asked proposers to perform. You will note that we did most of the test in a school using volunteer students and teachers in a Nashville school using classroom computers and school network. We did this because we think that while there are lots of technical ways to evaluate vendors providing Internet service, it is most important that we operate from the perspective of our students and the typical school environment. The rationale for the demonstration test, in student terms, was to assure that students wouldn't have to wait as long as they are now waiting to see the picture or information emerge on the computer screen when they request this information from an Internet site. If students have to wait too long, teachers won't use this as a means of instruction, or if the sites just don't show up, students get frustrated! Therefore, the RFP states the criteria that if a proposer demonstrates that they can deliver service on the State of Tennessee network (test 1), and deliver it equivalent to the time that students wait now, or less (test 2), then the proposer meets the criteria as specified in the RFP.

The purpose, as stated in the report, was to have proposers offer equipment and communication lines which are currently on the market and that provide equivalent functionality to the existing network." The State determined that both vendors, ENA and

ISIS2000, met the requirements of the RFP for the demonstration test and told both this information on the day of the test, Sat., March 7, 1998.

Further RFP Section 3.5 stated, "The use of the terms Must/Will/Should indicates a specific requirement that the State considers essential to this Request for Proposal.

Failure to adhere to this definition *may* (emphasis added) result in bidder disqualification." We determined that neither proposer should be disqualified and that neither should lose any points in the evaluation.

Do you have any questions about the tests?

Item #5. ENA Apparently Failed to Submit Cost Data in a Sealed Envelope.

The page labeled

"Reviewer Questions for ENA Response to RFP 97-2

March 10, 1998

Deliver via email with confirmation phone call to Jackie Shrago" was the heading on the document **provided to ENA.**

In response to this question, ENA delivered the first two pages of the Protest exhibit describing services, but **no cost** information was provided to any evaluator when the response was delivered. All cost information was provided in a sealed envelope and **only in a sealed envelope.** The envelope remained sealed in the Commissioner's office until 3 persons had transferred all evaluator technical scores to the Summary Sheet, signed and dated that Summary Sheet

ISDN tariff is not matchable (per the Tennessee Regulatory Authority), whereas our proposed frame relay and fractional T1 services are.

Component	Before Upgrade	Upgrade with E-Rate	Upgrade without E-Rate
Small School < 30 Computers	NE 1000 128 Kbps ISDN	Cisco 2501 128 Kbps Frac T1 to County	Cisco 2501 128 Kbps Frac T1 to County
Medium School 30 - 60 Computers	NE 1000 128 Kbps ISDN	Cisco 2501 256 Kbps Frac T1 to County	Cisco 2501 128 Kbps Frac T1 to County
Large School 60 - 120 Computers	NE 1000 128 Kbps ISDN	Cisco 2501 512 Kbps Frac T1 to Internet	Cisco 2501 128 - 256 Kbps Frac T1 (depending upon usage) to County or Internet
Extra-Large School > 120 Computers	NE 1000 128 Kbps ISDN	Cisco 2501 T1 to Internet	Cisco 2501 128 - 256 Kbps Frac T1 (depending upon usage) to Internet
County Configuration using State Backbone	NE 5000 V.35 T1 to TAP	Cisco 3640 V.35 T1 to TAP	Cisco 3640 V.35 T1 to TAP
County Configuration using Optional Network Configuration	NE 5000 V.35 T1 to TAP	Cisco 3640 Frame Relay T1 to Internet	Cisco 3640 Frame Relay T1 to Internet

Timing for deployment, per period, with and without E-Rate funding is shown in the table below.

Six Month Period	Standard Network Configuration	Optional Network Configuration
July 1 - December 31, 1998	95 County routers fielded 100 extra-large schools transitioned to T1 frame relay Internet connections 300 large schools transitioned to 512 Kbps fractional T1 frame relay Internet connections	95 County routers fielded to terminate new T1 frame relay Internet connections Terminal servers and modems fielded to each county 100 extra-large schools transitioned to T1 frame relay Internet connections 300 large schools transitioned to 512 Kbps fractional T1 frame relay Internet connections
January 1 - June 30, 1999	470 medium schools transitioned from ISDN to dedicated fractional T1 connections to county routers	125 medium schools transitioned from ISDN to dedicated fractional T1 connections to county routers
July 1 - December 31, 1999	530 medium schools transitioned from ISDN to dedicated fractional T1 connections to county routers	875 medium schools transitioned from ISDN to dedicated fractional T1 connections to county routers

Six Month Period	With E-Rate Funding	Without E-Rate Funding
July 1 - December 31, 1998	County routers fielded, address translation implemented E-mail service fielded, parallel email operations DNS servers fielded Extra-large and large schools transitioned to direct Internet connections Directory services, Caching and web hosting services offered	E-mail service fielded, parallel email operations begin Primary DNS server fielded Web hosting services offered
January 1 - June 30, 1999	Medium schools begin transition Parallel e-mail operations conclude—ten-nash DNS entry is redirected Secondary and backup e-mail servers fielded—email service capable of supporting 100,000 users Caching service expanded Network news services offered	Secondary DNS fielded to East and West TN Parallel e-mail operations conclude (ten-nash DNS entry is redirected) Any E-Rate upgraded schools transition to lower bandwidth (temporarily)
July 1 - December 31, 1999	Conclusion of transition of medium schools Small schools transitioned	E-mail service expanded to 50,000 users Any E-Rate upgraded schools transition to lower bandwidth (temporarily)
January 1 - June 30, 2000	Internet bandwidth upgraded as applicable	Any E-Rate upgraded schools transition to lower bandwidth (temporarily)
July 1 - December 31, 2000	No change	Any E-Rate upgraded schools transition to lower bandwidth (temporarily)
January 1 - June 30, 2001	Internet bandwidth upgraded as applicable	Any E-Rate upgraded schools transition to lower bandwidth (temporarily)
July 1 - December 31, 2001	No change	Any E-Rate upgraded schools transition to lower bandwidth (temporarily)

TABLE 7.

Capability Fielding Schedule with E-Rate funding versus without E-Rate funding